

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

NETLIST, INC.,

Plaintiff,

VS.

MICRON TECHNOLOGY, INC.,
MICRON SEMICONDUCTOR
PRODUCTS INC., MICRON
TECHNOLOGY TEXAS LLC,

Defendants.

Case No. 2:22-CV-203-JRG

JURY TRIAL DEMANDED

**PLAINTIFF NETLIST, INC.’S MOTION TO COMPEL PRODUCTION OF
REVERSE-ENGINEERING, SIMULATION DATA, AND COMPLETE
HBM TECHNICAL DOCUMENTS**

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Plaintiff Netlist hereby moves for an order:

(1) Compelling Micron to produce all reverse-engineering and competitive analysis

(2) Compelling Micron to produce all simulation data comparing Micron's HBM3 products to Micron's HBM2E products; and

(3) Compelling Micron to produce the missing pages and hyperlinks within Micron's production of HBM technical documents.

I. BACKGROUND

This Action was filed on June 10, 2022. Dkt. 1. Netlist has diligently been seeking discovery from Micron regarding the structure, function, and operation of the Accused Products and Micron's decision to adopt the design in those Accused Products since last year. *See* Dkt. 184-12 (2022-11-10 Zhao letter). Micron has erected significant barriers to Netlist's discovery efforts at every turn, requiring Netlist to file multiple motions to compel to obtain discovery it is entitled to under the Federal rules and this district's patent local rules. *See* Dkt. 178 at 1-11 (Netlist's motion for sanctions detailing, e.g., Micron's violation of P.R. 3-4, interference with Netlist's source code review efforts, and improper designation of technical documents as source code). As detailed below, Micron's failure to produce the three categories of documents above adds to the significant prejudice Netlist has already faced from Micron's withholding of relevant documents.

II. LEGAL STANDARD

Rule 26 allows a party to obtain discovery regarding any subject relevant to the claim or defense of any party. Fed. R. Civ. P. 26(b)(1); L.R. 26(d). "The party resisting discovery must show specifically how each discovery request is not relevant or how each request is overly broad, burdensome, or oppressive." *Williams v. Steward Health Care Sys., LLC*, 2021 WL 7084166, at *4 (E.D. Tex. Dec. 16, 2021) (citation omitted). Under the Discovery Order, "without awaiting a discovery request, each party" should "produce or permit the inspection of all documents . . . in the possession, custody, or control of the party that are relevant to the pleaded claims or defenses

involved in this action.” Dkt. 41 at 3.

III. ARGUMENT

A. Micron Must Produce Reverse-Engineering Reports of Samsung or SK hynix HBMs, DDR5 DIMMs, and DDR4 LRDIMMs

The Accused Products in this case are Micron’s HBM, DDR5 DIMM, and DDR4 LRDIMM products. Samsung and SK hynix also design and sell these products. Since last year, Netlist has been seeking documents such as studies and evaluations of the Accused Products. For example, with respect to Micron’s HBMs, Netlist’s November 10, 2022 discovery letter requested:

66. All studies, analyses, reports, or other documents in Micron's possession, control, or custody related to the transmission of data, control, and address signals from the host (e.g., a CPU, GPU, or SoC) to the control die (e.g., buffer die or logic die) or the DRAM dies in Micron Accused HBM Products, including simulations performed by Micron and/or third parties.

68. Documents sufficient to fully describe the HBM layout, interconnections, and signaling in Micron Accused HBM Products, including, but not limited, to documents related to: . . . (4) how Micron Accused HBM Products electrically isolate or reduce the load presented by the die interconnects (e.g., TSVs).

Dkt. 184-12 (2022-11-10 Zhao Letter) at 11-12.

Netlist followed up to request competitor studies for the TSV interconnect structure of the HBM products on July 31, August 4, and August 8, 2023. *See* Dkt. 137-02. On August 9, 2023, Netlist filed a motion to compel these competitor studies. Dkt. 137 at 1 (seeking production of “[d]ocuments related to any comparisons of the interconnect structures of Micron’s HBM products to the HBM products of its competitors, such as SK hynix and Samsung”). In response,

Based on this and other representations from Micron's counsel, Netlist did not seek to have the August 9, 2023 motion to compel heard at the August 22, 2023 discovery hearing on the outstanding motions to compel. However, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

To date, Micron has not produced [REDACTED]

[REDACTED]. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. These reverse-engineering reports are relevant to, among other things, Micron's decision to adopt the designs accused of infringement and the benefits conferred by those designs. For example, as Netlist explained in its August 9, 2023 motion to compel, [REDACTED]

[REDACTED]

[REDACTED]. As Netlist explained, the TSV interconnect structure of the Accused HBM products was highly relevant to Netlist's infringement allegations regarding the '060 and '160 patents, which are directed to load-reduced, vertically stacked memory packages with through-silicon vias (TSVs) where the memory packages have multiple die interconnects in electrical communication with some, but not all, of the array dies. *Id.* at 2.

Micron has not produced reverse-engineering reports regarding any of the other products accused of infringement in this case. [REDACTED]

Netlist's November 10, 2022 letter also requested production of such documents:

23. All studies, analyses, reports, or other documents in Micron's possession, control, or custody related to the operation of data buffers in Micron Accused DDR4 LRDIMMs, including simulations performed by Micron and/or third parties.

48. All studies, analyses, reports, or other documents in Micron's possession, control, or custody related to implementing the power management circuitry (including voltage regulation and monitoring circuitry) on the module board instead of on the motherboard in Micron Accused DDR5 DIMMs, including simulations performed by Micron and/or third parties.

Dkt. 184-12 (2022-11-10 Zhao Letter) at 6, 9. Such reports would be relevant to, among other things, Micron's decision to adopt on-module power-management for its DDR5 DIMMs featuring on-module power-management integrated circuits ("PMICs"), which is relevant to the '918 and '054 patents.

. Reverse-engineering reports would also be relevant to Micron's decision to adopt the distributed data buffer architecture for its DDR4 LRDIMMs, which the '339 and '506 patents are directed to. Thus, to the extent Micron possesses reverse-engineering documents for its DDR5 DIMM and DDR4 LRDIMM products, it must produce those.

B. Micron Must Produce Simulations Comparing the Designs of the TSVs and Other Features in Micron's HBM3 to those of its HBM2E Products

As detailed above and in Netlist's August 9 motion to compel,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Netlist has been seeking this information since November 11, 2022. Dkt. 184-12 (2022-11-10 Zhao Letter) at 11 (Category 66: “All studies, analyses, reports, or other documents in Micron’s possession, control, or custody related to the transmission of data, control, and address signals from the host . . . [to] the DRAM dies in Micron Accused HBM Products, *including simulations performed by Micron and/or third parties.*”) (emphasis added); *supra*, 1-2. On May 12, 2023, Netlist filed a motion to compel Micron to produce simulation data for all accused products, explaining that “Micron’s testing, evaluation, and simulation documents across all of the accused products are relevant not only to use of the accused products but also to the importance of the claimed features (e.g., whether Micron could achieve the product requirements without the inventions).” Dkt. 74 at 1-2. The parties subsequently memorialized Micron’s commitment to producing the simulation documents by June 2, 2023, in the pre-hearing joint status report. Dkt. 87 at 1 [REDACTED]

[REDACTED]

[REDACTED] However,

[REDACTED]

[REDACTED]:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED] The difference in capacitance (i.e., load) in the different TSV structures is pertinent to the '060 and '160 patents, which are directed to a load-reduced memory package with the alternating TSV structure described above. *See supra*, 3. The load-reduction features [REDACTED], are relevant to Netlist's technical benefits and infringement theories. For instance, claim 7 of the '060 patent expressly requires that the number of array dies in the first or second "group of array dies" be "selected in consideration of a load of the first die interconnect and a load of the second die interconnect so as to reduce a difference between a first load on the first data conduit and a second load on the second data conduit." Thus, Micron needs to produce the requested simulations [REDACTED]

[REDACTED].

C. Micron Must Make or Certify a Complete Production of HBM Technical Documents and Provide Print Production Correlation Files

As explained in Netlist's Motion for Sanctions (Dkt. 178), among a long list of delays and obstructions of HBM discovery cataloged more fully therein, [REDACTED]
[REDACTED]. It appears that not all such documents have been produced, and Micron refuses to certify that its production is complete by providing a list of all of the produced files correlated to their Bates numbers. Dkt. 178-08 (2023-09-15 Werner Email) at 1 (identifying the missing pages and gaps of Micron's source code production). Micron's production [REDACTED]

[REDACTED] Micron has refused to provide a certification by a Micron witness that the files are actually complete, accurate, and that no pages were removed prior to production (despite evidence to the contrary). [REDACTED]

[REDACTED] Micron should be ordered to produce complete copies of these HBM technical documents, or certify that it has produced complete copies of all such documents, including documents identified therein.

Micron has also failed to produce information correlating each of the inspection printouts that Netlist's consultant prepared to its respective Bates number. 2023-09-18 Werner Email. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

IV. CONCLUSION

For the reasons stated above, Netlists' motion should be granted.

Dated: September 20, 2023

Respectfully submitted,

/s/ Jason G. Sheasby

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CERTIFICATE OF SERVICE

I hereby certify that, on September 20, 2023 a copy of the foregoing was served to all counsel of record via Email.

/s/ Jason Sheasby
Jason Sheasby

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

I hereby certify that the foregoing document and exhibits attached hereto are authorized to be filed under seal pursuant to the Protective Order entered in this Case.

/s/ Jason Sheasby
Jason Sheasby

CERTIFICATE OF CONFERENCE

I hereby certify that I met and conferred with counsel for Micron on September 19. Micron did not commit to producing documents sufficient to resolve the above referenced disputes. The parties are thus at an impasse.

/s/ Jason Sheasby
Jason Sheasby